

### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

# REGION 4 ATLANTA FEDERAL CENTER 61 FORSYTH STREET ATLANTA, GEORGIA 30303-8960

**4SESD-EIB** 

# **MEMORANDUM**

SUBJECT: Addendum to Katrina Response Environmental Soil and Sediment

Sampling, Gulf Coast of Mississippi.

FROM: Fred Sloan

Superfund and Air Section

THRU: Mike Peyton, Director

Science and Ecosystem Support Division

TO: Henry Folmar, Chief

**MDEQ** 

This memorandum has been prepared as an addendum to the report *Katrina Response Environmental Soil and Sediment Sampling, Gulf Coast of Mississippi*, issued January 17, 2006. The data discussed here was not available when the original report was prepared, and the decision was made at that time to not delay issuing the report. That report should be referred to for a complete understanding of this dataset (http://www.epa.gov/region4/sesd/sesdpub\_completed.html). In addition, samples collected for the *Water Quality Study of Bays in Coastal Mississippi Water Quality Report* were used in this memorandum. Please refer to that report (http://www.epa.gov/region4/sesd/sesdpub\_completed.html) for a comprehensive explanation of that data. **Table 1** provides a short summary of the sample locations and rationale. **Figure 1** shows the locations of the facilities on the Mississippi Gulf Coast.

## DuPont - DeLisle, Pass Christian

The facility location can be seen in **Figure 2**, sample locations are shown in **Figure 4**. Five soil and sediment samples were re-collected from the original locations of the primary report referenced above. The samples were analyzed for dioxin only. The results are provided in **Table 2**. Samples SLB2SD and SLB6SD shown in **Figure 4** (results in **Table 3**) were collected as part of another study *Water Quality Study of Bays in Coastal Mississippi Water Quality Report, October 28, 2005*. Lab data sheets for all analyses are attached to this memorandum.

Data from soil and sediment data reporting dioxin concentrations in the vicinity of the facility prior to Hurricane Katrina was not available for comparison. Sampling data were evaluated against available risk-based human health screening values. Many of the data points for these contaminants are "J" flagged, indicating uncertainty in the concentration. This uncertainty, however, is common in reported site data. There are no apparent site specific data uncertainties that cast significant doubt on the results or on the conclusions herein.

Detections of dioxin 2,3,7,8-TCDD toxic equivalents (TEQ) did not exceed the residential EPA Region 9 preliminary remediation goal (PRG) of 3.9 ng/kg at sampling locations in the vicinity of residential development (DU2-SF-03, DU2-SF-04, DU2 SF-05). Detected levels of dioxin TEQ at sampling point DU2-SD-02 did not exceed the commercial/industrial PRG of 16 ng/kg, however the detected concentration at location DU2-SD-01 (41J ng/kg) did exceed the commercial/industrial PRG. The concentration at this location fell within a theoretical lifetime cancer risk range of 1 in 1,000,000 to 1 in 10,000 risk of an individual developing cancer over a lifetime of exposure to those concentrations, which USEPA has found acceptable in other contexts. In addition, since sampling location DU2-SD-01 is within an area of heavy vegetation adjacent to an industrial area it is unlikely that there would be an opportunity for significant human contact with any contaminated soil and sediment. All detected dioxin levels are well below EPA's residential clean up criteria of 1000 ng/kg.

None of the concentrations detected were at levels of concern in regard to protection of human health. There is no clear indication of a release in the area of the facility due to the effects of Hurricane Katrina.

# Naval Construction Battalion Center, Gulfport

The facility location can be seen in **Figure 3**, sample locations are shown in **Figure 5**. Five sediment samples were re-collected from the original locations of the primary report referenced above (no data is available from the original samples due to quality control errors in the laboratory). The samples were analyzed for dioxin only. The results are provided in **Table 4**. An additional four samples (PNC-SD-01, PNC-SD-02, PNC-SD-03, and PNC-SD-04) were collected at the request of MDEQ and analyzed for PCBs only. These samples were collected to address concerns expressed at a public meeting of possible PCB contamination in this ditch. No PCBs were reported in these samples. Lab data sheets for all analyses are attached to this memorandum.

Sampling data were evaluated against existing environmental sampling results and compared to available risk-based human health screening values. Many of the data points for these contaminants are "J" flagged, indicating uncertainty in the concentration. This uncertainty, however, is common in reported site data. There are no apparent site specific data uncertainties that cast significant doubt on the results or on the conclusions herein.

Detections of dioxin 2,3,7,8-TCDD toxic equivalents (TEQ) exceeded the residential PRG of 3.9 ng/kg at sampling points NC2-SD-02 (11J ng/kg); NC2-SD-03 (4.4J ng/kg) and NC2-SD-05 (5.1J ng/kg), but fell within a theoretical lifetime cancer risk range of 1 in 1,000,000 to 1 in 10,000 risk of an individual developing cancer over a lifetime of exposure to those concentrations, which USEPA has found acceptable in other contexts.

These sampling locations are within an area of heavy vegetation, and it is unlikely that there would be an opportunity for significant human contact with any contaminated soil and sediment. The analytical results for these five samples reported concentrations well within the range of reported TEQ levels from pre-hurricane sediment/soil samples from this site. All are well below EPA's residential clean up criteria of 1000 ng/kg for dioxin.

Relevant Pre-Hurricane Katrina Sediment Sampling Analysis at NCBC (Off Site Locations)							
Location	Number of Samples Collected	Maximum Concentration (TEQ ng/kg)	Maximum 2,3,7,8-TCDD Concentration (ng/kg)	Dates Samples Collected			
Off-Site Sediments (All samples collected during the Phase I & II Investigation)	37	61	NA	April 1997 - February 1999 <sup>1</sup>			
OBAOC (Swampy area north of NCBC)	86	418 Range: 0.3—418	NA	May 1997 - October 1997 <sup>2</sup>			
Turkey Creek (All) Turkey creek (Downstream)	10 2	11.3 6.7	1 ND	March 1999 <sup>3</sup>			
North of NCBC (28 <sup>th</sup> Street)	10	35.5	ND	October 2002 <sup>4</sup>			
North of Turkey Creek/ Canal Road	2	3.9	0.3	October 2002 <sup>4</sup>			
Confirmatory samples for area adjacent to the Canal Road culverts	2	5.5	0.65	April 2003 <sup>5</sup>			
Community Sample (Canal Road)	2	Range: 1.9—23	NA	March 2004 <sup>6</sup>			

#### Sources:

TEQ = Toxic Equivalents as 2,3,7,8 TCDD

ND = The analyte was analyzed for, but was not detected above the reported sample quantitation limit

NA= Data not available

OBAOC = Off-base Area of Concern

There does not appear to be any significant detrimental change in concentrations of site-related chemicals at the sampled locations. None of the concentrations detected were at levels of concern in regard to protection of human health. Based on these sampling results, EPA does not believe the site was adversely impacted by Hurricane Katrina.

<sup>&</sup>lt;sup>1</sup> Harding Lawson. 2001. Human Health Risk Assessment and Screening Level Ecological Risk Assessment. March 2001.

<sup>&</sup>lt;sup>2</sup> Harding Lawson. 1999. Surface Water and Sediment Dioxin Delineation Report. June 1999;

Tetra Tech NUS, Inc. 2003. Human Health risk Assessment of Groundwater Associated with Site 8. February 2003.

<sup>&</sup>lt;sup>3</sup> Harding Lawson. 1999. Tier 1 Screening Level Fish/Sediment Sampling Results. November 1999.

<sup>&</sup>lt;sup>4</sup> Tetra Tech NUS, Inc. 2003. Off-base Community Sampling Report. May 2003.

<sup>&</sup>lt;sup>5</sup> Tetra Tech NUS, Inc. 2003. Letter Report for Sediment Removal Adjacent to Canal Road Culverts, NCBC. April 2003.

<sup>&</sup>lt;sup>6</sup> Robert Fisher, Tetra Tech, Personal Communication, April 13, 2004.

			Table 1							
	Sample Rationale and Locations									
Facility	Sample ID	Grab or	Location	Rationale						
		Composite								
DuPont DeLisle	DU2-SD-01	Grab (0"-3")	Dirt road and canal	Evaluate potential for hazardous constituents to have						
			southwest of Site	drained from site via ditch.						
DuPont DeLisle	DU2-SD-02	Grab (0"-3")	Dirt road at well south of	Evaluate potential for hazardous constituents to have						
			site	drained from site via ditch.						
DuPont DeLisle	DU2-SF-03	3 point	South of swale along Kiln	Evaluate potential for hazardous constituents to have						
		composite	DeLisle Rd.	moved North with storm surge.						
		(0"-3")								
DuPont DeLisle	DU2-SF-04	3 point	South of swale along Kiln	Evaluate potential for hazardous constituents to have						
		composite	DeLisle Rd.	moved North with storm surge.						
D D 4 D I 1	DUO GE 05	(0"-3")								
DuPont DeLisle	DU2-SF-05	4 point	South of swale along Kiln DeLisle Rd.	Evaluate potential for hazardous constituents to have						
		composite (0"-3")	Delisie Rd.	moved North with storm surge.						
NCBC Gulfport	NC2-SD-01	Grab (0"-3")	Wetland North of NCBC	Evaluate potential for TCDD to have redoposited in						
NCBC Guilport	NC2-SD-01	Grab (0 -3 )	Wetland North of NCBC	remediated portion of wetland due to storm surge						
NCBC Gulfport	NC2-SD-02	Grab (0"-3")	Wetland North of NCBC	Evaluate potential for TCDD to have redoposited in						
Tiebe Gunpoit	1102 50 02	Glub (0 3)	Wething Hortin of Hebe	remediated portion of wetland due to storm surge						
NCBC Gulfport	NC2-SD-03	Grab (0"-3")	Wetland North of NCBC	Evaluate potential for TCDD to have redoposited in						
- · · · - · · · · · · · · · · · · · · ·		sediment trap		remediated portion of wetland due to storm surge						
NCBC Gulfport	NC2-SD-04	Grab (0"-	Wetland North of NCBC	Evaluate potential for TCDD to have redoposited in						
•		3")sediment		remediated portion of wetland due to storm surge						
		trap								
NCBC Gulfport	NC2-SD-05	Grab (0"-3")	Wetland North of NCBC	Evaluate potential for TCDD to have redoposited in						
		sediment trap	(Edwards tract)	remediated portion of wetland due to storm surge						

NCBC Gulfport	PNC-SD-01	Grab (0"-3")	Ditch	Make initial determination for presence or absence of
	'			PCBs in unnamed ditch draining NCBC
NCBC Gulfport	PNC-SD-02	Grab (0"-3")	Ditch	Make initial determination for presence or absence of
	'			PCBs in unnamed ditch draining NCBC
NCBC Gulfport	PNC-SD-03	Grab (0"-3")	Ditch	Make initial determination for presence or absence of
_	'			PCBs in unnamed ditch draining NCBC
NCBC Gulfport	PNC-SD-04	Grab (0"-3")	Ditch	Make initial determination for presence or absence of
_	'			PCBs in unnamed ditch draining NCBC

Table 2 **Dioxin Analyses DuPont** – **DeLisle** Pass Christian, Mississippi November, 2005

		DU2SD01		DU2SD01D		DU2SD02		DU2SF03		DU2SF04		DU2SF05		DU2SF05S	Ī
		825		825		935		1110		1050		1030		1030	
		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005	
% Moisture	%	78		78		16		10		9		10		9	
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	NG/KG	460		450		67		63		97		10		10	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	NG/KG	220		210		2.5	U	14	U	32		3	J	3	J
1,2,3,4,7,8,9-Heptachlorodibenzofuran	NG/KG	120		110		0.35	J	0.88	J	1.3	J	0.39	J	0.4	J
1,2,3,4,7,8-Hexachlorodibenzodioxin	NG/KG	5.1	J	5.2	J	1	J	1.2	J	1.6	J	0.27	J	0.26	J
1,2,3,4,7,8-Hexachlorodibenzofuran	NG/KG	140		140		0.55	J	0.73	J	0.69	J	0.36	U	0.34	J
1,2,3,6,7,8-Hexachlorodibenzodioxin	NG/KG	13	J	12	J	1.9	J	2.5	J	3.4	J	0.56	J	0.53	J
1,2,3,6,7,8-Hexachlorodibenzofuran	NG/KG	17		17		0.25	J	0.57	J	0.75	J	0.23	U	0.23	U
1,2,3,7,8,9-Hexachlorodibenzodioxin	NG/KG	19		20		0.55	U	2.7	J	3.4	J	0.46	J	0.35	J
1,2,3,7,8-Pentachlorodibenzodioxin	NG/KG	2.3	J	2.3	J	0.5	J	0.63	J	0.57	J	0.18	J	0.16	U
1,2,3,7,8-Pentachlorodibenzofuran	NG/KG	23		22		0.35	U	0.24	J	0.21	J	0.2	J	0.21	U
2,3,4,6,7,8-Hexachlorodibenzofuran	NG/KG	9.2	J	8.7	J	0.31	U	0.87	U	1.2	U	0.29	U	0.30	U
2,3,4,7,8-Pentachlorodibenzofuran	NG/KG	5.8	J	5.2	J	0.31	U	0.43	J	0.25	J	0.24	J	0.22	U
2,3,7,8-Tetrachlorodibenzodioxin	NG/KG	0.53	J	0.55	U	0.18	U	0.14	U	0.15	U	0.064	U	0.074	U
Heptachlorodibenzodioxin (Total)	NG/KG	1500	J	1500	J	200	J	120	J	180	J	23	J	23	J
Heptachlorodibenzofuran (Total)	NG/KG	520		480	J	200	J	23	J	75	J	6.8	J	3.7	J
Hexachlorodibenzodioxin (Total)	NG/KG	520	J	520	J	65	J	19	J	23	J	3	J	4.4	J
Hexachlorodibenzofuran (Total)	NG/KG	250	J	230	J	3	J	13	J	22	J	2.9	J	3.3	J
Octachlorodibenzodioxin	NG/KG	8100		8100		1500		640		770		110		110	
Octachlorodibenzofuran	NG/KG	4800		4500		8.4	J	52		80		11		12	
Pentachlorodibenzodioxin (Total)	NG/KG	78	J	78	J	10	J	2.3	J	1.3	J	0.58	J	0.26	J
Pentachlorodibenzofuran (Total)	NG/KG	93	J	92	J	0.83	J	5.8	J	3.5	J	1.8	J	1.7	J
TEQ (Avian Toxic. Equiv. Value) <sup>1</sup>	NG/KG	35	J	34	J	1.7	J	2.1	J	2.4	J	0.63	J	0.59	J
TEQ (Fish Toxic. Equiv. Value) <sup>1</sup>	NG/KG	46	J	46	J	1.9	J	2.2	J	2.3	J	0.87	J	0.83	J
TEQ (Mammalian Toxic. Equiv) <sup>1</sup>	NG/KG	41	J	40	J	2.6	J	2.8	J	3.4	J	0.78	J	0.74	J
Tetrachlorodibenzodioxin (Total)	NG/KG	39	J	37	J	4.2	J	0.49	J	0.23	J	0.064	UJ	0.3	J
Tetrachlorodibenzofuran (Total)	NG/KG	57	J	54	J	5.2	J	3.1	J	1.1	J	1.5	J	1.6	J

U-Analyte not detected at or above reporting limit.

J-Identification of analyte is acceptable; reported value is an estimate.

<sup>1</sup> From WHO TEQ-98

Table 3 **Dioxin Analyses** Bay St. Louis Pass Christian, Mississippi September, 2005

		SLB2SD		SLB6SD	
		1520		1040	
		9/30/2005		9/30/2005	
% Moisture	%	23		55	
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	NG/KG	50		330	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	NG/KG	1.4	J	9.1	
1,2,3,4,7,8,9-Heptachlorodibenzofuran	NG/KG	0.15	J	1.1	U
1,2,3,4,7,8-Hexachlorodibenzodioxin	NG/KG	0.56	J	3.9	
1,2,3,6,7,8-Hexachlorodibenzodioxin	NG/KG	1.1	J	7.5	
1,2,3,7,8,9-Hexachlorodibenzodioxin	NG/KG	2.3		16	
1,2,3,7,8-Pentachlorodibenzodioxin	NG/KG	0.22	J	1.2	J
Heptachlorodibenzodioxin (Total)	NG/KG	180	J	1200	っ
Heptachlorodibenzofuran (Total)	NG/KG	3.4	J	22	J
Hexachlorodibenzodioxin (Total)	NG/KG	75	J	520	J
Hexachlorodibenzofuran (Total)	NG/KG	1.6	J	11	J
Octachlorodibenzodioxin	NG/KG	1100		5700	J
Octachlorodibenzofuran	NG/KG	3.2	J	19	
Pentachlorodibenzodioxin (Total)	NG/KG	11	J	84	J
Pentachlorodibenzofuran (Total)	NG/KG	0.57	J	6.1	っ
TEQ (Avian Toxic. Equiv. Value) <sup>1</sup>	NG/KG	1.2	J	5.8	っ
TEQ (Fish Toxic. Equiv. Value) <sup>1</sup>	NG/KG	1	J	5.3	J
TEQ (Mammalian Toxic. Equiv. Value) <sup>1</sup>	NG/KG	1.5	J	8.9	J
Tetrachlorodibenzodioxin (Total)	NG/KG	5.5	J	44	J
Tetrachlorodibenzofuran (Total)	NG/KG	0.74	J	7.9	J

U-Analyte not detected at or above reporting limit.

J-Identification of analyte is acceptable; reported value is an estimate.

<sup>1</sup> From WHO TEQ-98

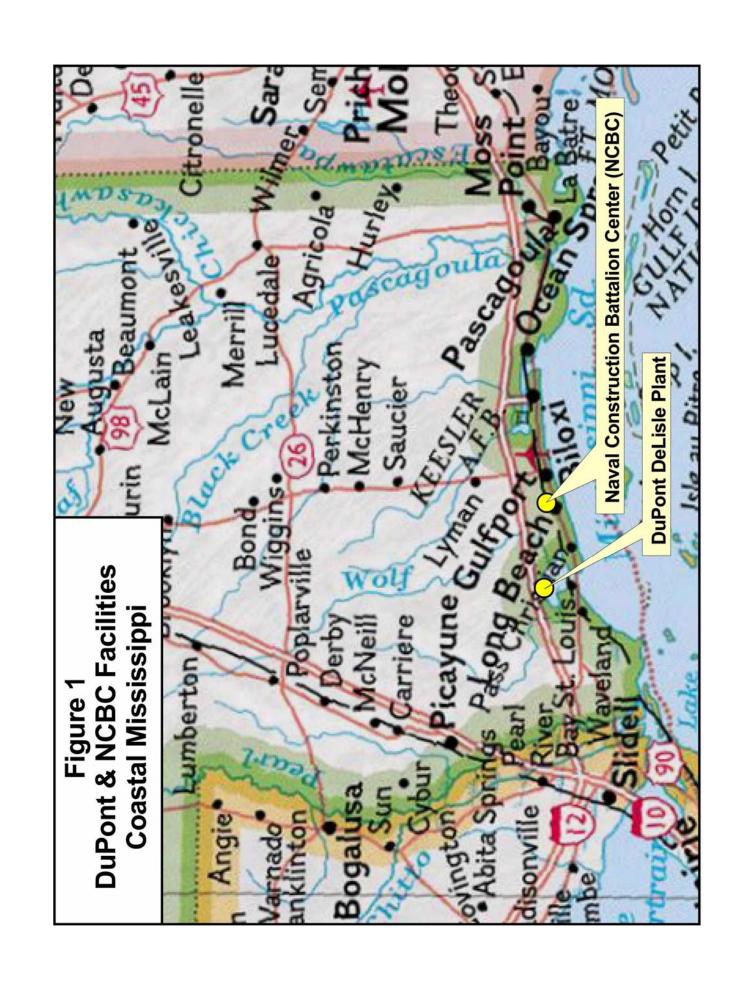
Table 4 Dioxin Analyses Naval Construction Battalion Center Gulfport, Mississippi November, 2005

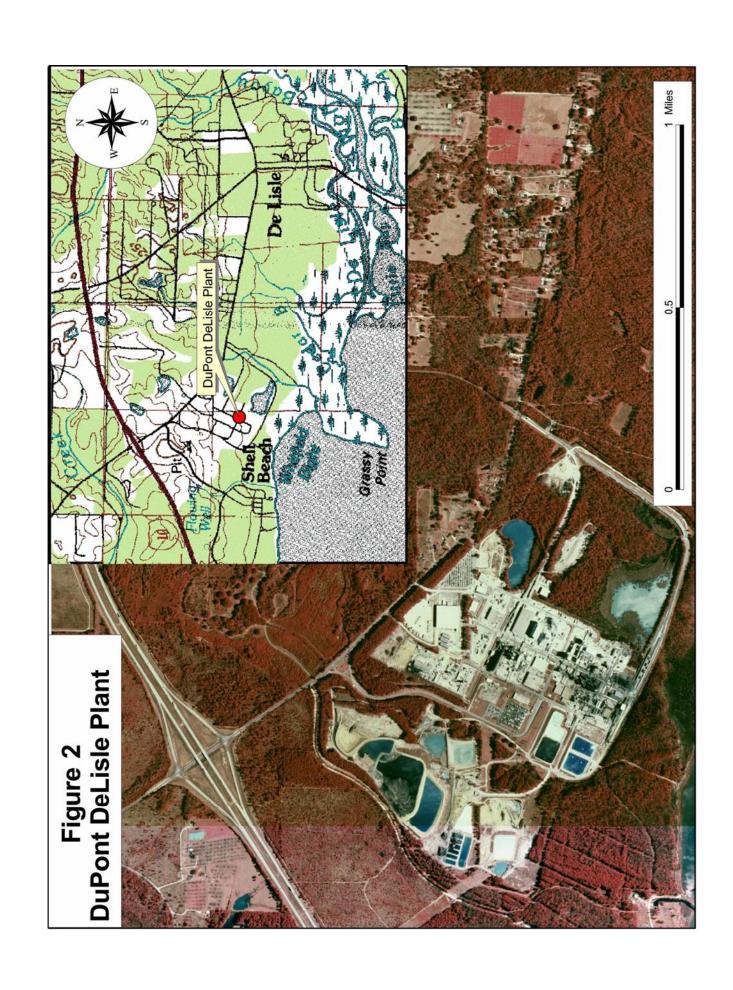
		NC2SD01		NC2SD02		NC2SD02S		NC2SD03		NC2SD03D		NC2SD04		NC2SD05	]
		1430		1415		1415		1350		1355		1335		1320	1
		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005		11/16/2005	
% Moisture	%	22		29		18		25		24		26		36	
1,2,3,4,6,7,8-Heptachlorodibenzodioxin	NG/KG	18		150		140		41		46		44		71	
1,2,3,4,6,7,8-Heptachlorodibenzofuran	NG/KG	5.3		23	U	22	U	5.6	U	6.5	U	6.0	U	8.0	U
1,2,3,4,7,8,9-Heptachlorodibenzofuran	NG/KG	0.43	J	0.99	J	0.84	J	0.27	J	0.24	J	0.3	J	0.37	J
1,2,3,4,7,8-Hexachlorodibenzodioxin	NG/KG	0.33	J	1.9	J	1.9	J	0.38	J	0.39	J	0.5	J	0.70	U
1,2,3,4,7,8-Hexachlorodibenzofuran	NG/KG	0.42	U	1.4	J	1.3	U	0.32	U	0.36	U	0.34	U	0.44	U
1,2,3,6,7,8-Hexachlorodibenzodioxin	NG/KG	1.1	J	5.4		5		1.3	J	1.5	J	1.4	J	1.9	J
1,2,3,6,7,8-Hexachlorodibenzofuran	NG/KG	0.33	U	1.1	J	1.1	U	0.29	U	0.32	U	0.32	U	0.41	U
1,2,3,7,8,9-Hexachlorodibenzodioxin	NG/KG	0.72	U	12		11		5		5.4		3.8	J	6.7	
1,2,3,7,8,9-Hexachlorodibenzofuran	NG/KG	0.18	U	0.4	J	0.24	U	0.11	U	0.11	U	0.11	U	0.11	U
1,2,3,7,8-Pentachlorodibenzodioxin	NG/KG	0.21	U	1	J	0.99	J	0.27	U	0.31	U	0.31	U	0.42	J
2,3,4,6,7,8-Hexachlorodibenzofuran	NG/KG	0.34	U	1.5	J	1.5	U	0.33	U	0.38	U	0.37	U	0.44	U
2,3,7,8-Tetrachlorodibenzodioxin	NG/KG	0.8	J	5		4.8		2.6		3		1.8		2.5	
2,3,7,8-Tetrachlorodibenzofuran	NG/KG	0.35	J	0.98	U	1.0	U	0.48	J	0.46	U	0.31	J	0.47	U
Heptachlorodibenzodioxin (Total)	NG/KG	36	J	290	J	270	J	75	J	85	J	88	J	140	J
Heptachlorodibenzofuran (Total)	NG/KG	17	J	33	J	250	J	8	J	9.7	J	0.63	J	11	J
Hexachlorodibenzodioxin (Total)	NG/KG	7.7	J	68	J	64	J	20	J	22	J	20	J	35	J
Hexachlorodibenzofuran (Total)	NG/KG	8.7	J	29	J	23	J	5.1	J	6	J	5.5	J	7.2	J
Octachlorodibenzodioxin	NG/KG	130		2000		1900		490		560		740		1200	
Octachlorodibenzofuran	NG/KG	6.4	J	43		43		10		14		13		14	
Pentachlorodibenzodioxin (Total)	NG/KG	1.1	J	7.4	J	4.4	J	1	J	1.6	J	2.2	J	5.3	J
Pentachlorodibenzofuran (Total)	NG/KG	3.5	J	16	J	16	J	3.3	J	4.1	J	2.9	J	4	J
TEQ (Avian Toxic. Equiv. Value) <sup>1</sup>	NG/KG	0.78	J	3.7	J	3.5	J	0.95	J	1	J	1	J	1.5	J
TEQ (Fish Toxic. Equiv. Value) <sup>1</sup>	NG/KG	1.2	J	5.3	J	5	J	1.8	J	1.9	J	1.6	J	2.3	J
TEQ (Mammalian Toxic. Equiv. Value) <sup>1</sup>	NG/KG	1.8	J	11	J	10	J	4.4	J	4.9	J	3.5	J	5.1	J
Tetrachlorodibenzodioxin (Total)	NG/KG	0.92	J	7.6	J	8.2	J	3.5	J	3.8	J	2.6	J	4.7	J
Tetrachlorodibenzofuran (Total)	NG/KG	1.5	J	10	J	8.7	J	3	J	2.9	J	2.5	J	4.2	J

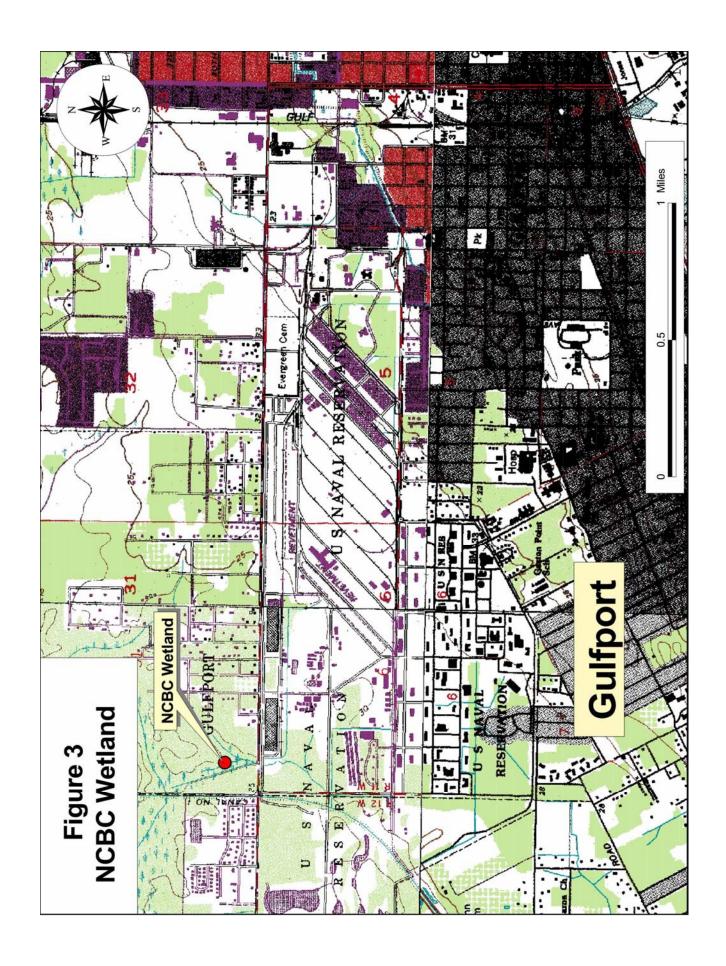
U-Analyte not detected at or above reporting limit.

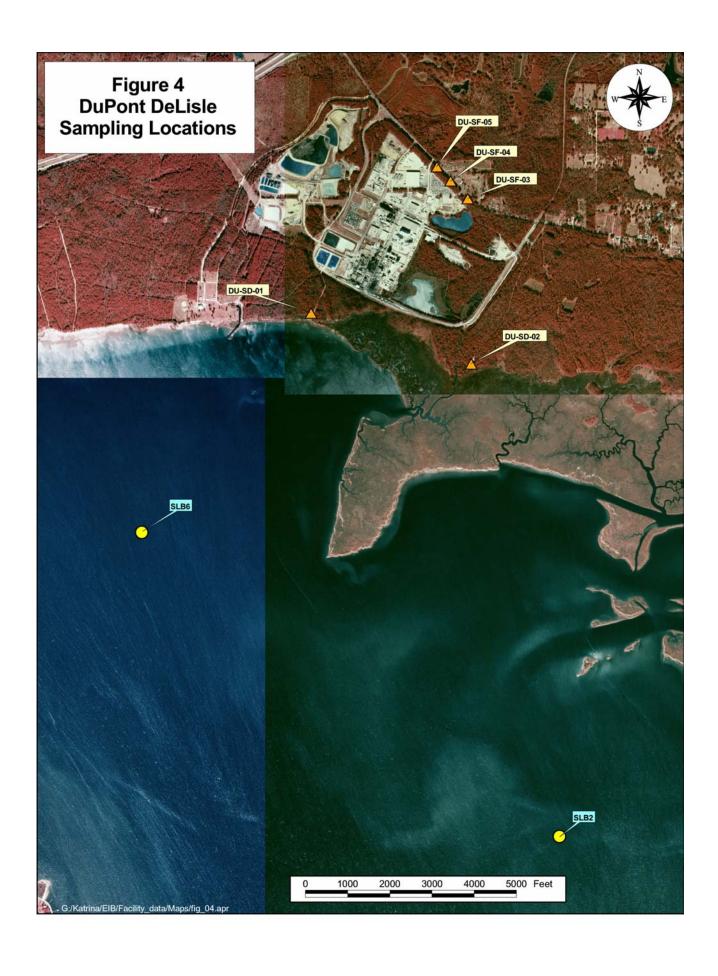
J-Identification of analyte is acceptable; reported value is an estimate.

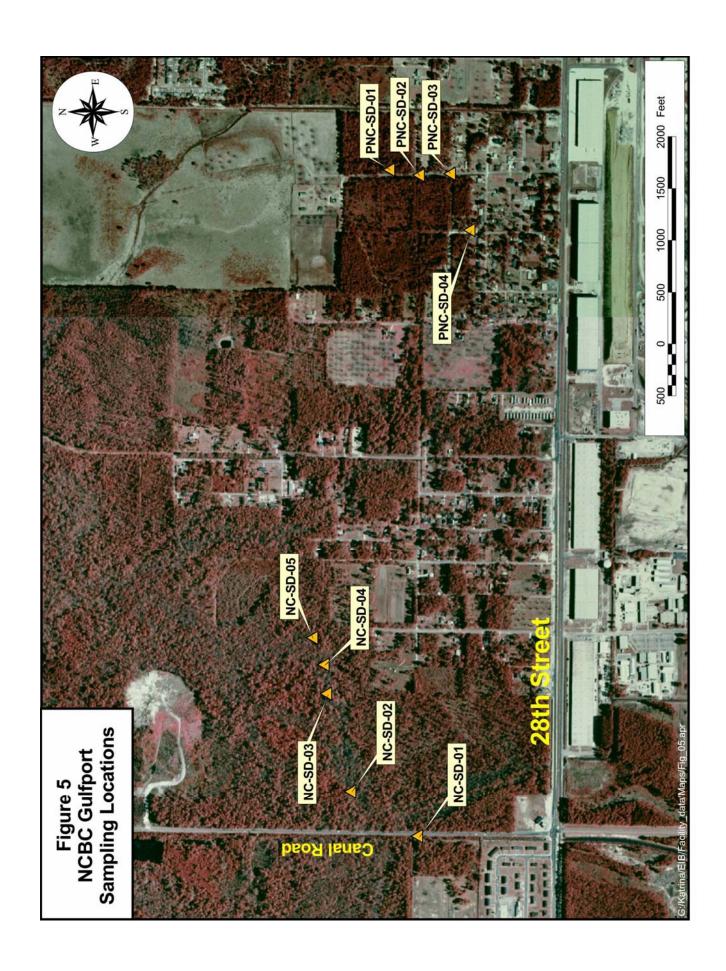
<sup>1</sup> From WHO TEQ-98











**EPA - REGION IV SESD, ATHENS, GA** 

SAS Number:DIOX

Production Date: 01/23/2006 13:18

Sample **1010** FY **2006** Project: **06-0102** 

Dioxin Scan

Facility: Hurricane Katrina Response

Program: SF

Id/Station: DU2SD01 /

Project Leader: FSLOAN

Beginning: 11/16/2005 08:25

Produced by: Appleby, Charlie

Ending:

Requestor:

Org Contractor: PARADI Media: SEDIMENT D No: SD01

RESULTS	UNITS	ANALYTE
0.53 J	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
39 J	NG/KG	Tetrachlorodibenzodioxin (Total)
2.3 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
78 J	NG/KG	Pentachlorodibenzodioxin (Total)
5.1 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
13 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
19	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
520 J	NG/KG	Hexachlorodibenzodioxin (Total)
460	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
1500 J	NG/KG	Heptachlorodibenzodioxin (Total)
8100	NG/KG	Octachlorodibenzodioxin
8.2 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
57 J	NG/KG	Tetrachlorodibenzofuran (Total)
23	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
5.8 J	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
93 J	NG/KG	Pentachlorodibenzofuran (Total)
140	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
17	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
38 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
9.2 J	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
250 J	NG/KG	Hexachlorodibenzofuran (Total)
220	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
120	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
520	NG/KG	Heptachlorodibenzofuran (Total)
4800	NG/KG	Octachlorodibenzofuran
41 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
35 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
46 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
78	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

Production Date: 01/23/2006 13:18

Sample 1011 FY 2006 Project: 06-0102

Ject. **00-0102** 

Requestor:

Facility: Hurricane Katrina Response

Project Leader: FSLOAN
Beginning: 11/16/2005 08:25

Produced by: Appleby, Charlie

Program: SF

SAS Number:DIOX Ending:

Id/Station: DU2SD01D /

Dioxin Scan

Media: SEDIMENT D No: D01D Org Contractor: PARADI

RESULTS	UNITS	ANALYTE
0.55 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
37 J	NG/KG	Tetrachlorodibenzodioxin (Total)
2.3 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
78 J	NG/KG	Pentachlorodibenzodioxin (Total)
5.2 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
12 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
20	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
520 J	NG/KG	Hexachlorodibenzodioxin (Total)
450	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
1500 J	NG/KG	Heptachlorodibenzodioxin (Total)
8100	NG/KG	Octachlorodibenzodioxin
8.9 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
54 J	NG/KG	Tetrachlorodibenzofuran (Total)
22	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
5.2 J	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
92 J	NG/KG	Pentachlorodibenzofuran (Total)
140	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
17	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
32 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
8.7 J	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
230 J	NG/KG	Hexachlorodibenzofuran (Total)
210	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
110	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
480 J	NG/KG	Heptachlorodibenzofuran (Total)
4500	NG/KG	Octachlorodibenzofuran
40 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
34 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
46 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
78	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample **1012** FY **2006** Project: **06-0102**  Produced by: Appleby, Charlie Requestor:

**Dioxin Scan** 

Facility: Hurricane Katrina Response

Project Leader: FSLOAN Beginning: 11/16/2005 09:35

Program: SF

SAS Number:DIOX

Ending:

Id/Station: DU2SD02 /

Media: SEDIMENT

Org Contractor: PARADI D No: SD02

RESULTS	UNITS	ANALYTE
0.18 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
4.2 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.50 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
10 J	NG/KG	Pentachlorodibenzodioxin (Total)
1.0 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.9 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
3.8 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
65 J	NG/KG	Hexachlorodibenzodioxin (Total)
67	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
200 J	NG/KG	Heptachlorodibenzodioxin (Total)
1500	NG/KG	Octachlorodibenzodioxin
0.23 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
5.2 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.35 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.31 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
0.83 J	NG/KG	Pentachlorodibenzofuran (Total)
0.55 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.25 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.55 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.31 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
3.0 J	NG/KG	Hexachlorodibenzofuran (Total)
2.5 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.35 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
200 J	NG/KG	Heptachlorodibenzofuran (Total)
8.4 J	NG/KG	Octachlorodibenzofuran
2.6 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
1.7 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.9 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
16	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Production Date: 01/23/2006 13:18

Sample 1013 FY 2006 Project: **06-0102** 

Dioxin Scan

Facility: Hurricane Katrina Response

Program: SF

Id/Station: DU2SF03 /

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 11:10

Ending:

Org Contractor: PARADI Media: SURFACE SOIL D No: SF03

RESULTS	UNITS	ANALYTE
0.14 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
0.49 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.63 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
2.3 J	NG/KG	Pentachlorodibenzodioxin (Total)
1.2 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
2.5 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
2.7 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
19 J	NG/KG	Hexachlorodibenzodioxin (Total)
63	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
120 J	NG/KG	Heptachlorodibenzodioxin (Total)
640	NG/KG	Octachlorodibenzodioxin
0.22 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
3.1 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.24 J	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.43 J	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
5.8 J	NG/KG	Pentachlorodibenzofuran (Total)
0.73 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.57 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.46 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.87 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
13 J	NG/KG	Hexachlorodibenzofuran (Total)
14 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.88 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
23 J	NG/KG	Heptachlorodibenzofuran (Total)
52	NG/KG	Octachlorodibenzofuran
2.8 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
2.1 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
2.2 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
10	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Production Date: 01/23/2006 13:18

Sample 1014 FY 2006 Project: 06-0102

Poquesto

**Dioxin Scan** 

Facility: Hurricane Katrina Response

Program: SF SAS Number:DIOX

Id/Station: DU2SF04 /

Media: SURFACE SOIL D No: SF04 Org Contractor: PARADI

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 10:50

Ending:

		5
RESULTS	UNITS	ANALYTE
0.15 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
0.23 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.57 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
1.3 J	NG/KG	Pentachlorodibenzodioxin (Total)
1.6 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
3.4 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
3.4 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
23 J	NG/KG	Hexachlorodibenzodioxin (Total)
97	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
180 J	NG/KG	Heptachlorodibenzodioxin (Total)
770	NG/KG	Octachlorodibenzodioxin
0.18 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
1.1 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.21 J	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.25 J	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
3.5 J	NG/KG	Pentachlorodibenzofuran (Total)
0.69 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.75 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.30 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
1.2 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
22 J	NG/KG	Hexachlorodibenzofuran (Total)
32	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
1.3 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
75 J	NG/KG	Heptachlorodibenzofuran (Total)
80	NG/KG	Octachlorodibenzofuran
3.4 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
2.4 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
2.3 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
9	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Production Date: 01/23/2006 13:18

Sample **1015** FY **2006** Project: **06-0102** 

Dioxin Scan

Facility: Hurricane Katrina Response

Program: SF

Id/Station: DU2SF05 /

Media: SURFACE SOIL

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 10:30

Ending:

Org Contractor: PARADI D No: SF05

RESULTS	UNITS	ANALYTE
0.064 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
0.064 UJ	NG/KG	Tetrachlorodibenzodioxin (Total)
0.18 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
0.58 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.27 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
0.56 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
0.46 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
3.0 J	NG/KG	Hexachlorodibenzodioxin (Total)
10	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
23 J	NG/KG	Heptachlorodibenzodioxin (Total)
110	NG/KG	Octachlorodibenzodioxin
0.20 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
1.5 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.20 J	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.24 J	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
1.8 J	NG/KG	Pentachlorodibenzofuran (Total)
0.36 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.23 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.24 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.29 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
2.9 J	NG/KG	Hexachlorodibenzofuran (Total)
3.0 J	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.39 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
6.8 J	NG/KG	Heptachlorodibenzofuran (Total)
11	NG/KG	Octachlorodibenzofuran
0.78 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
0.63 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
0.87 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
10	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Production Date: 01/23/2006 13:18

Sample **1016** FY **2006** Project: **06-0102** 

Dioxin Scan

Facility: Hurricane Katrina Response

Program: SF

Id/Station: DU2SF05S /

Media: SURFACE SOIL

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 10:30

Ending:

Org Contractor: PARADI D No: SF05

RESULTS	UNITS	ANALYTE
0.074 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
0.30 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.16 U	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
0.26 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.26 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
0.53 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
0.35 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
4.4 J	NG/KG	Hexachlorodibenzodioxin (Total)
10	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
23 J	NG/KG	Heptachlorodibenzodioxin (Total)
110	NG/KG	Octachlorodibenzodioxin
0.21 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
1.6 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.21 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.22 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
1.7 J	NG/KG	Pentachlorodibenzofuran (Total)
0.34 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.23 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.20 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.30 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
3.3 J	NG/KG	Hexachlorodibenzofuran (Total)
3.0 J	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.40 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
3.7 J	NG/KG	Heptachlorodibenzofuran (Total)
12	NG/KG	Octachlorodibenzofuran
0.74 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
0.59 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
0.83 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
9	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample 1017 FY 2006 Project: 06-0102

Produced by: Appleby, Charlie Requestor:

**Dioxin Scan** 

Project Leader: FSLOAN

Facility: Hurricane Katrina Response

Program: SF

SAS Number:DIOX

Beginning: 11/16/2005 14:30

Ending:

Id/Station: NC2SD01 /

Media: SEDIMENT D No: SD01 Org Contractor: PARADI

RESULTS	UNITS	ANALYTE
0.80 J	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
0.92 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.21 U	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
1.1 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.33 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.1 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
0.72 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
7.7 J	NG/KG	Hexachlorodibenzodioxin (Total)
18	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
36 J	NG/KG	Heptachlorodibenzodioxin (Total)
130	NG/KG	Octachlorodibenzodioxin
0.35 J	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
1.5 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.18 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.30 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
3.5 J	NG/KG	Pentachlorodibenzofuran (Total)
0.42 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.33 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.18 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.34 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
8.7 J	NG/KG	Hexachlorodibenzofuran (Total)
5.3	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.43 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
17 J	NG/KG	Heptachlorodibenzofuran (Total)
6.4 J	NG/KG	Octachlorodibenzofuran
1.8 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
0.78 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.2 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
22	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample 1018 FY 2006 Project: 06-0102

Produced by: Appleby, Charlie Requestor:

Dioxin Scan

Project Leader: FSLOAN

Facility: Hurricane Katrina Response

Beginning: 11/16/2005 14:15

Program: SF

SAS Number:DIOX

Ending:

Id/Station: NC2SD02 /

Media: SEDIMENT D No: SD02 Org Contractor: PARADI

RESULTS	UNITS	ANALYTE
5.0	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
7.6 J	NG/KG	Tetrachlorodibenzodioxin (Total)
1.0 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
7.4 J	NG/KG	Pentachlorodibenzodioxin (Total)
1.9 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
5.4	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
12	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
68 J	NG/KG	Hexachlorodibenzodioxin (Total)
150	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
290 J	NG/KG	Heptachlorodibenzodioxin (Total)
2000	NG/KG	Octachlorodibenzodioxin
0.98 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
10 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.50 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.95 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
16 J	NG/KG	Pentachlorodibenzofuran (Total)
1.4 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
1.1 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.40 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
1.5 J	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
29 J	NG/KG	Hexachlorodibenzofuran (Total)
23 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.99 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
33 J	NG/KG	Heptachlorodibenzofuran (Total)
43	NG/KG	Octachlorodibenzofuran
11 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
3.7 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
5.3 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
29	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

SAS Number:DIOX

Org Contractor: PARADI

Production Date: 01/23/2006 13:18

Sample 1019 FY 2006 Project: 06-0102

00-0102 R

**Dioxin Scan** 

Facility: Hurricane Katrina Response

Program: SF

Id/Station: NC2SD02S /

Media: SEDIMENT D No: SD02S

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 14:15

Ending:

Media. SEDIMENT		D No. 3D023
RESULTS	UNITS	ANALYTE
4.8	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
8.2 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.99 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
4.4 J	NG/KG	Pentachlorodibenzodioxin (Total)
1.9 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
5.0	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
11	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
64 J	NG/KG	Hexachlorodibenzodioxin (Total)
140	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
270 J	NG/KG	Heptachlorodibenzodioxin (Total)
1900	NG/KG	Octachlorodibenzodioxin
1.0 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
8.7 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.45 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.81 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
16 J	NG/KG	Pentachlorodibenzofuran (Total)
1.3 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
1.1 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.24 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
		Hexachlorodibenzofuran (Total)
_		1,2,3,4,6,7,8-Heptachlorodibenzofuran
		1,2,3,4,7,8,9-Heptachlorodibenzofuran
		Heptachlorodibenzofuran (Total)
-		Octachlorodibenzofuran
		TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
		TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
		TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
18	%	% Moisture
	RESULTS  4.8  8.2 J  0.99 J  4.4 J  1.9 J  5.0  11  64 J  140  270 J  1900  1.0 U  8.7 J  0.45 U  0.81 U  16 J  1.3 U  1.1 U	4.8 NG/KG 8.2 J NG/KG 0.99 J NG/KG 0.99 J NG/KG 4.4 J NG/KG 1.9 J NG/KG 5.0 NG/KG 11 NG/KG 64 J NG/KG 140 NG/KG 140 NG/KG 1900 NG/KG 1,0 U NG/KG 0.45 U NG/KG 0.81 U NG/KG 1.3 U NG/KG 1.1 U NG/KG 1.1 U NG/KG 0.24 U NG/KG 0.250 J NG/KG 0.84 J NG/KG 0.84 J NG/KG 0.84 J NG/KG 0.85 J NG/KG 0.86 NG/KG 0.87 NG/KG 0.89 NG/KG

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample 1020 FY 2006 Project: 06-0102

00-0102

**Dioxin Scan** 

Facility: Hurricane Katrina Response

Program: SF

Id/Station: NC2SD03 /

Id/Ctation: NC23D03 /

SAS Number:DIOX

Project Leader: FSLOAN

Beginning: 11/16/2005 13:50

Produced by: Appleby, Charlie

Ending:

Requestor:

Media: SEDIMENT D No: SD03 Org Contractor: PARADI

RESULTS	UNITS	ANALYTE
2.6	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
3.5 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.27 U	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
1.0 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.38 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.3 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
5.0	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
20 J	NG/KG	Hexachlorodibenzodioxin (Total)
41	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
75 J	NG/KG	Heptachlorodibenzodioxin (Total)
490	NG/KG	Octachlorodibenzodioxin
0.48 J	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
3.0 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.16 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.29 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
3.3 J	NG/KG	Pentachlorodibenzofuran (Total)
0.32 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.29 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.11 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.33 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
5.1 J	NG/KG	Hexachlorodibenzofuran (Total)
5.6 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.27 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
8.0 J	NG/KG	Heptachlorodibenzofuran (Total)
10	NG/KG	Octachlorodibenzofuran
4.4 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
0.95 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.8 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
25	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

**EPA - REGION IV SESD, ATHENS, GA** 

SAS Number:DIOX

Production Date: 01/23/2006 13:18

Sample 1021 FY **2006** Project: **06-0102** 

**Dioxin Scan** 

Facility: Hurricane Katrina Response

Program: SF

Id/Station: NC2SD03D /

Media: SEDIMENT

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 13:55

Ending:

Org Contractor: PARADI D No: SD03D

RESULTS	UNITS	ANALYTE
3.0	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
3.8 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.31 U	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
1.6 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.39 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.5 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
5.4	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
22 J	NG/KG	Hexachlorodibenzodioxin (Total)
46	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
85 J	NG/KG	Heptachlorodibenzodioxin (Total)
560	NG/KG	Octachlorodibenzodioxin
0.46 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
2.9 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.16 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.26 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
4.1 J	NG/KG	Pentachlorodibenzofuran (Total)
0.36 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.32 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.11 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.38 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
6.0 J	NG/KG	Hexachlorodibenzofuran (Total)
6.5 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.24 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
9.7 J	NG/KG	Heptachlorodibenzofuran (Total)
14	NG/KG	Octachlorodibenzofuran
4.9 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
1.0 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.9 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
24	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample 1022 FY 2006 Project: **06-0102** 

Requestor:

Facility: Hurricane Katrina Response

Project Leader: FSLOAN Beginning: 11/16/2005 13:35

Produced by: Appleby, Charlie

Program: SF

Dioxin Scan

SAS Number:DIOX

Ending:

Id/Station: NC2SD04 /

Org Contractor: PARADI Media: SEDIMENT D No: SD04

RESULTS	UNITS	ANALYTE
1.8	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
2.6 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.31 U	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
2.2 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.50 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.4 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
3.8 J	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
20 J	NG/KG	Hexachlorodibenzodioxin (Total)
44	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
88 J	NG/KG	Heptachlorodibenzodioxin (Total)
740	NG/KG	Octachlorodibenzodioxin
0.31 J	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
2.5 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.15 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.22 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
2.9 J	NG/KG	Pentachlorodibenzofuran (Total)
0.34 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.32 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.11 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.37 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
5.5 J	NG/KG	Hexachlorodibenzofuran (Total)
6.0 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.30 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
0.63 J	NG/KG	Heptachlorodibenzofuran (Total)
13	NG/KG	Octachlorodibenzofuran
3.5 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
1.0 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.6 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
26	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:18

Sample 1023 FY **2006** Project: **06-0102** 

Dioxin Scan

Facility: Hurricane Katrina Response

Program: SF

Id/Station: NC2SD05 /

SAS Number:DIOX

Produced by: Appleby, Charlie

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 13:20

Ending:

Org Contractor: PARADI Media: SEDIMENT D No: SD05

D=0 = 0		AA1A1 \/==
RESULTS	UNITS	ANALYTE
2.5	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
4.7 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.42 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
5.3 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.70 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.9 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
6.7	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
35 J	NG/KG	Hexachlorodibenzodioxin (Total)
71	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
140 J	NG/KG	Heptachlorodibenzodioxin (Total)
1200	NG/KG	Octachlorodibenzodioxin
0.47 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
4.2 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.17 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.30 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
4.0 J	NG/KG	Pentachlorodibenzofuran (Total)
0.44 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.41 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.11 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.44 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
7.2 J	NG/KG	Hexachlorodibenzofuran (Total)
8.0 U	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.37 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
11 J	NG/KG	Heptachlorodibenzofuran (Total)
14	NG/KG	Octachlorodibenzofuran
5.1 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
1.5 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
2.3 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
36	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

Production Date: 10/21/2005 15:37

Sample 9623 FY 2005 Project: 05-0927

**Dioxin Scan** 

Facility: Mississippi Gulf Coast Monitoring Study

Program: WQU

Id/Station: SLB2SD /

Media: SEDIMENT D No: SLB2S Org Contractor: PARADI

Produced by: Appleby, Charlie

Requestor: MDEQ

Project Leader: MKOENIG Beginning: 09/30/2005 15:20

Ending:

	J.,,,_,,,	5 No. 02520 0.g 00
RESULTS	UNITS	ANALYTE
0.10 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
5.5 J	NG/KG	Tetrachlorodibenzodioxin (Total)
0.22 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
11 J	NG/KG	Pentachlorodibenzodioxin (Total)
0.56 J	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
1.1 J	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
2.3	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
75 J	NG/KG	Hexachlorodibenzodioxin (Total)
50	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
180 J	NG/KG	Heptachlorodibenzodioxin (Total)
1100	NG/KG	Octachlorodibenzodioxin
0.16 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
0.74 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.10 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.15 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
0.57 J	NG/KG	Pentachlorodibenzofuran (Total)
0.17 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
0.17 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.089 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
0.17 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
1.6 J	NG/KG	Hexachlorodibenzofuran (Total)
1.4 J	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
0.15 J	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
3.4 J	NG/KG	Heptachlorodibenzofuran (Total)
3.2 J	NG/KG	Octachlorodibenzofuran
1.5 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
1.2 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
1.0 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
23	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

Production Date: 10/21/2005 15:37

9624 FY 2005 Project: 05-0927

**Dioxin Scan** 

Sample

Facility: Mississippi Gulf Coast Monitoring Study

Program: WQU

Id/Station: SLB6SD /

Media: SEDIMENT D No: SLB6S Org Contractor: PARADI

Produced by: Appleby, Charlie

Requestor: MDEQ

Project Leader: MKOENIG Beginning: 09/30/2005 10:40

Ending:

		3
RESULTS	UNITS	ANALYTE
0.30 U	NG/KG	2,3,7,8-Tetrachlorodibenzodioxin
44 J	NG/KG	Tetrachlorodibenzodioxin (Total)
1.2 J	NG/KG	1,2,3,7,8-Pentachlorodibenzodioxin
84 J	NG/KG	Pentachlorodibenzodioxin (Total)
3.9	NG/KG	1,2,3,4,7,8-Hexachlorodibenzodioxin
7.5	NG/KG	1,2,3,6,7,8-Hexachlorodibenzodioxin
16	NG/KG	1,2,3,7,8,9-Hexachlorodibenzodioxin
520 J	NG/KG	Hexachlorodibenzodioxin (Total)
330	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzodioxin
1200 J	NG/KG	Heptachlorodibenzodioxin (Total)
5700 J	NG/KG	Octachlorodibenzodioxin
0.53 U	NG/KG	2,3,7,8-Tetrachlorodibenzofuran
7.9 J	NG/KG	Tetrachlorodibenzofuran (Total)
0.40 U	NG/KG	1,2,3,7,8-Pentachlorodibenzofuran
0.58 U	NG/KG	2,3,4,7,8-Pentachlorodibenzofuran
6.1 J	NG/KG	Pentachlorodibenzofuran (Total)
1.0 U	NG/KG	1,2,3,4,7,8-Hexachlorodibenzofuran
1.1 U	NG/KG	1,2,3,6,7,8-Hexachlorodibenzofuran
0.36 U	NG/KG	1,2,3,7,8,9-Hexachlorodibenzofuran
1.4 U	NG/KG	2,3,4,6,7,8-Hexachlorodibenzofuran
11 J	NG/KG	Hexachlorodibenzofuran (Total)
9.1	NG/KG	1,2,3,4,6,7,8-Heptachlorodibenzofuran
1.1 U	NG/KG	1,2,3,4,7,8,9-Heptachlorodibenzofuran
22 J	NG/KG	Heptachlorodibenzofuran (Total)
19	NG/KG	Octachlorodibenzofuran
8.9 J	NG/KG	TEQ (Mammalian Toxic. Equiv. Value, From WHO TEQ-98)
5.8 J	NG/KG	TEQ (Avian Toxic. Equiv. Value, From WHO TEQ-98)
5.3 J	NG/KG	TEQ (Fish Toxic. Equiv. Value, From WHO TEQ-98)
55	%	% Moisture

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:26

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 14:55

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

Sample 879 FY 2006 Project: 06-0111

**ANALYTE** 

% Moisture

PCB-1242 (Aroclor 1242)

PCB-1254 (Aroclor 1254)

PCB-1221 (Aroclor 1221)

PCB-1232 (Aroclor 1232)

PCB-1248 (Aroclor 1248) PCB-1260 (Aroclor 1260)

PCB-1016 (Aroclor 1016)

**PCB Scan** 

Facility: Hurricane Katrina Response

Program: SF

100 U

18

Id/Station: PNCSD01 / Media: SEDIMENT

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

%

**RESULTS UNITS** 

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable. C-confirmed by GCMS | /1-when no value is reported, see chlordane constituents | /2-constituents or metabolites of technical chlordane

# **EPA - REGION IV SESD, ATHENS, GA**

----<u>-</u>-----

Production Date: 01/23/2006 13:26

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 15:05

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

Sample 880 FY 2006 Project: 06-0111

**ANALYTE** 

% Moisture

PCB-1242 (Aroclor 1242)

PCB-1254 (Aroclor 1254)

PCB-1221 (Aroclor 1221)

PCB-1232 (Aroclor 1232)

PCB-1248 (Aroclor 1248) PCB-1260 (Aroclor 1260)

PCB-1016 (Aroclor 1016)

**PCB Scan** 

Facility: Hurricane Katrina Response

Program: SF

100 U

13

Id/Station: PNCSD02 / Media: SEDIMENT

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

%

**RESULTS UNITS** 

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Production Date: 01/23/2006 13:26

Produced by: Revells, Lavon

Requestor:

Project Leader: FSLOAN
Beginning: 11/16/2005 15:15

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

Sample 881 FY 2006 Project: 06-0111

**ANALYTE** 

% Moisture

PCB-1242 (Aroclor 1242)

PCB-1254 (Aroclor 1254)

PCB-1221 (Aroclor 1221)

PCB-1232 (Aroclor 1232)

PCB-1248 (Aroclor 1248) PCB-1260 (Aroclor 1260)

PCB-1016 (Aroclor 1016)

**PCB Scan** 

Facility: Hurricane Katrina Response

Program: SF

100 U

25

Id/Station: PNCSD03 / Media: SEDIMENT

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

%

**RESULTS UNITS** 

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.

**EPA - REGION IV SESD, ATHENS, GA** 

Produced by: Revells, Lavon

Production Date: 01/23/2006 13:26

Requestor:

Project Leader: FSLOAN Beginning: 11/16/2005 15:30

Ending:

DATA REPORTED ON DRY WEIGHT BASIS

Sample 882 FY 2006 Project: 06-0111

**ANALYTE** 

% Moisture

PCB-1242 (Aroclor 1242)

PCB-1254 (Aroclor 1254)

PCB-1221 (Aroclor 1221)

PCB-1232 (Aroclor 1232)

PCB-1248 (Aroclor 1248) PCB-1260 (Aroclor 1260)

PCB-1016 (Aroclor 1016)

**PCB Scan** 

Facility: Hurricane Katrina Response

Program: SF

100 U

16

Id/Station: PNCSD04 / Media: SEDIMENT

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

UG/KG

%

**RESULTS UNITS** 

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit. Reporting limit is an estimate. N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported value is an estimate. K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.

L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.

NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.